CLAIM AMENDMENTS

1. (CURRENTLY AMENDED) Apparatus for linearly slewing a device fixed to a two degree of freedom gyroscope having a spinning rotor, said device being associated with ~~within~~ a two-axis system, said apparatus comprising, in combination:

a) ~~said device being fixed to a two degree of freedom gyroscope;~~

~~b)~~ said gyroscope including a first forcer for applying a first torque with respect to a first rotor axis in response to a first ~~an input~~ signal ~~to precess a rotor about a second, orthogonal rotor axis~~ and a second forcer for applying a second torque to said rotor with respect to a ~~said~~ second, orthogonal rotor axis in response to a second signal;

b) a first pickoff for detecting deflection of said rotor about said first rotor axis and generating a first pickoff signal in response and a second pickoff for detecting deflection of said rotor about said second rotor axis and generating a second pickoff signal in response;

c) a first motor for driving said device about a first device axis in response to said first pickoff signal and a second motor for driving said device about a second device axis in rfesponse to said second pickoff signal; and

d)~~c)~~ at least one cross-axis circuit for receiving one of said first and second signals ~~input signal~~ and deriving the other of said first and second signals ~~signal~~ as the derivative

thereof ~~of said input signal so that said second signal drives said second forcer to precess said rotor with respect to said first axis to substantially cancel an effect of torque applied by said first forcer with respect to said first axis of said rotor whereby said device is slewed along a linear path.~~

2. (CANCELED)

3. (PREVIOUSLY PRESENTED) Apparatus as defined in Claim 1 wherein a gain of said at least one cross-axis circuit is inversely proportional to a nutation frequency of said rotor.

4. (PREVIOUSLY PRESENTED) Apparatus as defined in Claim 1 wherein a transfer function T(s) of said at least one cross-axis circuit is

$$T(s) = Ks/(s + 2\pi k f_{nut})$$

where k is an integer and f_{nut} is a nutation frequency of said rotor.

5. (ORIGINAL) Apparatus as defined in Claim 1 wherein said at least one cross-axis circuit comprises an operational amplifier.

6. (ORIGINAL) Apparatus as defined in Claim 5 wherein said at least one cross-axis circuit comprises an operational amplifier including a feedback resistor in parallel with a feedback capacitor.

7. (ORIGINAL) Apparatus as defined in Claim 1 further comprising a second cross-axis circuit arranged to receive said second signal and to generate said first signal in response thereto.

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8. (PREVIOUSLY PRESENTED) Apparatus as defined in Claim 7 wherein each cross-axis circuit generates an output signal comprising a derivative of an input signal.

9. (PREVIOUSLY PRESENTED) Apparatus as defined in Claim 8 wherein a gain of each cross-axis circuit is inversely proportional to a nutation frequency of said rotor.

10. (PREVIOUSLY PRESENTED) Apparatus as defined in Claim 7 wherein a transfer function T(s) of each of said cross-axis circuits is

$$T(s) = Ks/(s + 2\pi k f_{nut})$$

where k is an integer and f_{nut} is a nutation frequency of said rotor.

11. (ORIGINAL) Apparatus as defined in Claim 7 wherein each of said cross-axis circuits comprises an operational amplifier.

12. (ORIGINAL) Apparatus as defined in Claim 11 wherein each of said cross-axis circuits comprises an operational amplifier including a feedback resistor in parallel with a feedback capacitor.

13. (CANCELED)

14. (CANCELED)

15. (CANCELED)

16. (CANCELED)

17. (CANCELED)

18. (CANCELED)

19. (CANCELED)

20. (CANCELED)

21. (PREVIOUSLY PRESENTED) Apparatus as defined in Claim 1 wherein said device is a camera.